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[54]	RADAR RETURN SIGNAL SIMULATOR	
[75]		Leslie J. Vencel, Fulham Gardens; Jonathan J. Schutz, Para Vista; Rahmon C. Coupe, Glenalta; Martin J. Hoffensetz, Evandale; Scott J. Capon, Elizabeth Field; Ian G. Wrigley, Tea Tree Gully; George Hallwood, Athelstone, all of Australia
[73]	Assignee:	The Commonwealth of Australia, Australian Capital Territory, Australia
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[56]		References Cited
U.S. PATENT DOCUMENTS		
3	,982,244 .9	7/1976 Ward et al 342/169

4,168,502 9/1979 Susie

4,204,342

4,591,858

2/151
2/169
434/2
434/2
2/195
2/169
2/165
2/170
2/172
2/375

Primary Examiner-John B. Sotomayor Attorney, Agent, or Firm-Brown, Martin, Haller & McClain

[57] **ABSTRACT**

An apparatus for generating one or more radar return signals representative of one or more remote objects useable in ground based, shipboard and airborne radar systems for testing the radar and its user. The apparatus may generate one or more return signal scenarios which may if required interact with the real or preprogrammed movement of the craft in which the radar is fitted. To ensure accurate and repeatable radar return signal generator apparatus operation, the radar's own built-in test signal output is used by the apparatus to calibrate the radio frequency portion of the apparatus, which adapts a remote object return signal scenario into the crafts radar device. To further improve the accuracy of the return signal, a digital first-in-first-out (FIFO) delay means is used to accurately allow the delayed reuse of the radar's own transmission signal.

6 Claims, 6 Drawing Sheets

